



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-7427; Directorate Identifier 2016-NM-041-AD; Amendment 39-18714; AD 2016-23-07]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2013-02-08 for all Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. AD 2013-02-08 required inspection of the trunnions and upper and lower pins of the horizontal stabilizer trim actuator (HSTA), and replacement or re-identification if necessary; and revision of the maintenance program to include safe life limits and inspection requirements for the HSTA. This new AD requires certain actions related to the trunnions and pins for the HSTA, revising the maintenance or inspection program, and removing certain airplanes from the applicability. This AD was prompted by a determination that not all affected attachment pins and trunnions were included in the inspections required by AD 2016-02-08, and that incorrect attachment hardware may have been used in replacements on certain airplanes. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7427.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7427; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (516) 228-7318; fax (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2013-02-08, Amendment 39-17329 (78 FR 7647, February 4, 2013) (“AD 2013-02-08”). AD 2013-02-08 applied to all Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. The NPRM published in the Federal Register on July 15, 2016 (81 FR 45992). The NPRM was prompted by a determination that not all affected attachment pins and trunnions were included in the required inspections. In addition, for certain airplanes on which the replacement in AD 2013-02-08 was done, incorrect attachment hardware may have been used. The NPRM proposed to require measuring the diameter of certain bolts and attach holes, and, as applicable, measuring the diameter of the attach holes in the trunnions and pins; doing detailed visual inspections of the trunnions, pins, and spacers; doing corrective actions; and re-identifying trunnions and pins. The NPRM also proposed to require revising the maintenance or inspection program, and to remove certain airplanes from the applicability. We are issuing this AD to prevent failure of the attachment pins and trunnions of the HSTA. This condition could result in separation of the horizontal stabilizer, and consequent loss of control of the airplane.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2016-08, effective March 30, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. The MCAI states:

After the issuance of [Canadian] AD CF-2011-45, it was discovered that the [Canadian] AD did not address all affected Horizontal Stabilizer Trim Actuator (HSTA) attachment pins and trunnions. In addition, it is possible that aeroplanes having incorporated the Initial issue or Revision A, of Bombardier Service Bulletin (SB) 601R-27-160 used incorrect attachment hardware to re-install the HSTA attachment pins or trunnions.

This [Canadian] AD mandates the inspection and rectification, as required, and the re-identification, as required, of the HSTA pins and trunnions and incorporation of a revised Airworthiness Limitation task.

The required actions include measuring the diameter of certain bolts and attach holes, and, as applicable, measuring the diameter of the attach holes in the trunnions and pins; doing detailed visual inspections of the trunnions, pins, and spacers; doing corrective actions; and re-identifying trunnions and pins. Corrective actions include replacing bolts, trunnions, pins, and spacers; increasing the diameter of the attach holes; and repairing trunnions and pins.

The required actions also include revising the maintenance or inspection program.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7427.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM and the FAA's response.

Request for Acknowledgement of Previously Approved Method for Part Marking

Air Wisconsin Airlines (Air Wisconsin) requested that the previously approved alternative method of compliance (AMOC) for part marking (re-identifying trunnions and pins) be acknowledged and approved for accomplishing the proposed re-identification of trunnions and pins. Air Wisconsin indicated that it has already performed the inspection and part marking on the parts as required by AD 2013-02-08 and marked the parts using a method approved by an AMOC.

We do not agree with the request. This AD does not retain the requirements of AD 2013-02-08 and instead requires new actions (measurements, inspections, corrective actions, and re-identification of parts). The new actions address all affected HSTA pins and trunnions and ensure that the correct attachment hardware is used for the re-installation of pins and trunnions. Existing AMOCs, including those that have part marking procedures, might not be acceptable for compliance with the requirements of this AD. We have made no changes to this final rule regarding this issue. However, under the provisions of paragraph (l)(1) of this AD, we may approve requests for alternative procedures if data are submitted to substantiate that those procedures would provide an acceptable level of safety.

Conclusion

We reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR part 51

We reviewed the following service information:

- Bombardier Service Bulletin 601R-27-160, Revision D, dated October 22, 2015. The service information describes procedures for measuring the diameter of certain bolts and attach holes, and, as applicable, measuring the diameter of the attach holes in the trunnions and pins; doing detailed visual inspections of the trunnions, pins, and spacers; doing corrective actions; and re-identifying trunnions and pins.
- Bombardier CL-600-2B19 Airworthiness Requirements Temporary Revision 2B-2245, dated September 16, 2014. The service information describes safe life limits for the HSTA trunnion support and attaching hardware.
- Bombardier CL-600-2B19 Airworthiness Requirements Temporary Revision 2B-2186, dated August 8, 2011. The service information describes an

inspection of the upper and lower installation pins of the horizontal stabilizer pitch trim actuator.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 489 airplanes of U.S. registry.

We estimate that it takes about 8 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$332,520, or \$680 per product.

In addition, we estimate that any necessary follow-on actions take about 20 work-hours and require parts costing \$4,391, for a cost of \$6,091 per product. We have no way of determining the number of products that may need these actions.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by

prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2013-02-08, Amendment 39-17329 (78 FR 7647, February 4, 2013), and adding the following new AD:

2016-23-07 Bombardier, Inc.: Amendment 39-18714; Docket No. FAA-2016-7427; Directorate Identifier 2016-NM-041-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2013-02-08, Amendment 39-17329 (78 FR 7647, February 4, 2013) (“AD 2013-02-08”).

(c) Applicability

This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial numbers 7003 through 8113 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 27: Flight controls.

(e) Reason

This AD was prompted by a determination that not all affected attachment pins and trunnions were included in the inspections required by AD 2013-02-08, and that incorrect attachment hardware may have been used in replacements on certain airplanes. We are issuing this AD to prevent failure of the attachment pins and trunnions of the horizontal stabilizer trim actuator (HSTA), which could result in separation of the horizontal stabilizer, and consequent loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspection

(1) For airplanes on which the detailed inspection specified in Bombardier Service Bulletin 601R-27-160, dated September 29, 2011; or Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012; has not been done as of the effective date of this AD: At the earliest of the times specified in paragraphs (g)(1)(i), (g)(1)(ii), and (g)(1)(iii) of this AD, measure the diameter of the bolts that attach the trunnions and pins; measure the diameter of the attach holes in the airplane structure, and, as applicable, measure the diameter of the attach holes in the trunnions and pins; do detailed visual inspections for gouges, scratches, and corrosion of the trunnions and pins; do detailed visual inspections for damage of the spacers; do corrective actions; and re-identify trunnions and pins; in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-160, Revision D, dated October 22,

2015; except as required by paragraph (h) of this AD. Do all applicable corrective actions before further flight.

(i) Within 5,000 flight hours after March 11, 2013 (the effective date of AD 2013-02-08).

(ii) Within 60 months after March 11, 2013 (the effective date of AD 2013-02-08).

(iii) Before the accumulation of 40,000 total flight cycles, or within 60 days after March 11, 2013 (the effective date of AD 2013-02-08), whichever occurs later.

(2) For airplanes on which the detailed inspection specified in Bombardier Service Bulletin 601R-27-160, dated September 29, 2011; or Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012; has been done as of the effective date of this AD: Within 9,600 flight hours or 60 months after the effective date of this AD, whichever occurs first, measure the diameter of the bolts that attach the trunnions and pins; measure the diameter of the attach holes in the airplane structure, and, as applicable, measure the diameter of the attach holes in the trunnions and pins; do detailed visual inspections for gouges, scratches, and corrosion of the trunnions and pins; do detailed visual inspections for damage of the spacers; do corrective actions; and re-identify trunnions and pins; in accordance with Part B of the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-160, Revision D, dated October 22, 2015, except as required by paragraph (h) of this AD. Do all applicable corrective actions before further flight.

(h) Exception to Service Information

Where Bombardier Service Bulletin 601R-27-160, Revision D, dated October 22, 2015, specifies to contact Bombardier for disposition, before further flight, repair in accordance with the requirements of paragraph (l)(2) of this AD.

(i) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using the service information identified in paragraphs (i)(1) and (i)(2) of this AD.

(1) Bombardier Service Bulletin 601R-27-160, Revision B, dated February 20, 2015.

(2) Bombardier Service Bulletin 601R-27-160, Revision C, dated May 3, 2015.

(j) Revision of Maintenance or Inspection Program

(1) Within 30 days after March 11, 2013 (the effective date of AD 2013-02-08), revise the maintenance or inspection program, as applicable, to incorporate the information specified in Bombardier CL-600-2B19 Airworthiness Requirements Temporary Revision 2B-2186, dated August 8, 2011. The compliance time for doing the initial inspection of the upper and lower installation pins of the horizontal stabilizer pitch trim actuator is before the accumulation of 40,000 landings or within 60 days after March 11, 2013, whichever occurs later.

(2) Within 30 days after the effective date of this AD, revise the maintenance or inspection program, as applicable, to incorporate the information specified in Bombardier CL-600-2B19 Airworthiness Requirements Temporary Revision 2B-2245, dated

September 16, 2014. The compliance time for doing the initial replacement for the HSTA trunnion support and attaching hardware is before the accumulation of 80,000 landings or within 60 days after the effective date of this AD, whichever occurs later.

(k) No Alternative Actions or Intervals

After accomplishing the revision required by paragraph (j) of this AD, no alternative actions (e.g., inspections) or intervals may be used unless the actions or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (l)(1) of this AD.

(l) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must

be accomplished using a method approved by the Manager, New York ACO, ANE-170, Engine and Propeller Directorate, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2016-08, effective March 30, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-7427.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 601R-27-160, Revision D, dated October 22, 2015.

(ii) Bombardier CL-600-2B19 Airworthiness Requirements Temporary Revision 2B-2245, dated September 16, 2014.

(iii) Bombardier CL-600-2B19 Airworthiness Requirements Temporary Revision 2B-2186, dated August 8, 2011.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on November 8, 2016.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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